An Introduction to UNIX Pine

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Section I - Introduction and General Questions about Pine

Introduction to Pine

Pine is an easy to use, character based mail client. It supports full screen editing of messages, binary attachments (such as GIF or ZIP files), and other advanced message system features that were not possible using older electronic mail clients.

How is Pine Different from Other Electronic Mail Clients?

Functionally, most mailers have the same basic capabilities (reading, creating, sending, and managing mail). Pine's features include the following:

Full Screen Capabilities. Pine allows full screen reading and editing of messages. For example, you can make corrections in your message while you write it, and you can scroll up and down through a message while you are reading it.

Safety for New Users. One of Pine's strong points is that it will not perform any major action without asking you first. This helps prevent accidental deletions of messages, overwriting of files, etc. There's almost always a chance to turn back and think things over.

On-line Help. For every screen and menu, Pine has a help command that lists the commands available in that screen, with comments and explanations.

Sending Attachments with Your Message. Pine has a feature (known as MIME encoding) for sending binary files along with your message. If your correspondent also has MIME capability, you can transmit, for example, a graphics file or a formatted word processor document via mail.

Name Recognition (Address Books). Pine can store Internet mail addresses in an address book. This allows you only to have to remember short nicknames for people you mail often. See Section VII for more about address books.

Message Browsing. The FOLDER INDEX screen (cf. Section III) allows you to browse through your messages. For instance, you can skim past some messages and read the most important ones first.

Message Printing. From within Pine, you can print your messages on any networked printer accessible to Helix's lpr command. Many Macintosh and PC users are able to print to an attached desktop printer as well.

Saving Messages. • Pine allows you to save your messages into folders, which you can open at a later time. This allows you to "sort" your mail into different folders.

How Do I Start Pine?

To run Pine, at the helix% prompt just type pine.

OK, I'm in Pine... Now What???

Once you start pine, you will notice a few characteristics that are consistent throughout the program. Let's go over some of these.

There are four informational lines on the screen that will have the same format regardless of which screen you are viewing. The lines are:

Title Line (Line 1). The first line of each screen (see Figure 1) shows you exactly where you are within Pine. The figure shows that we are in the "MAIN MENU." If you are browsing through your messages, the title line will say "FOLDER INDEX," and so on for the other screens.

List of Command Keys (Last 2 lines). The last two lines on the screen show what possible actions, together with Keyboard Commands to execute them. Pine displays a Keyboard Command as highlighted text with the corresponding action just to its right in normal text

Keyboard Commands have two forms. The first form is a one-letter abbreviation of the action itself. This form is found in all of the menus except the COMPOSE MESSAGE screen.

The second form is found in the COMPOSE MESSAGE screen. Since all the characters on the keyboard are reserved for typing the message, the commands are invoked by a combination of keys, one of which is the Control key (often labeled Ctrl). That is, the command is performed by holding down the Control key and pressing the appropriate secondary key simultaneously.

Usually, the Keyboard Command is the first letter of the corresponding action. For example,

- C is the Keyboard Command to Compose a message in the MAIN MENU and the FOLDER INDEX.
- · ^C (Ctrl-C) is the Keyboard Command to Cancel the message in the COMPOSE MESSAGE Screen.

Sometimes two or more actions have the same first letter, as, for example, "Previous Command" and "Print." Therefore some keyboard commands cannot represent the first letter of the corresponding actions.

Y is the Keyboard Command to Print a message. Think of it as "PrYnt".

Information/Message/Error Line (Third Line from Bottom). The third line from the bottom is an informational line. It will print notifications when new mail arrives, descriptive messages when actions are completed, questions which require short responses, and error messages if something is wrong.

Return Key. You do not have to press the Return key when issuing keyboard commands.

Arrow Keys. In addition to the way things appear on the screen, Pine also has conventions in the way actions or commands are chosen. When a menu appears, you will see a highlighted bar. This is the "Selection Bar," and you can use the arrow keys to move the bar over the part of the screen you want to select.

You can also use the arrow keys to correct mistakes when viewing and editing a message.

Alternatives are available: Ctrl-P to move to the previous line and Ctrl-N to move to the next line.

Paging. Whenever you can use the arrow keys, you can use the space bar and the minus sign (-) to page downward and upward. These commands are similar to the arrow keys but scroll the text a full screen at a time.

Re-Painting the Screen (Ctrl-L). When you press Ctrl-L, Pine will clear your screen and print everything back on the screen again. This command is used when your screen has extra, unwanted characters due to line noise or system messages. In the FOLDER INDEX and MESSAGE TEXT Screens, Ctrl-L will look to see if you have any new mail as well. See Section III - Retrieving Your Messages for more information.

Canceling Commands (Ctrl-C). The command Ctrl-C is used to abort any actions that you have started and do not want to finish. Examples are pressing Ctrl-X before you really want to send your message, and aborting a reply command. You will notice that whenever Pine displays Y/N/^C options you can enter yes or no, or press Ctrl-C to abort completely.

Quitting. From just about any screen within Pine, you can use the Q Key Command to quit Pine.

Section II - The MAIN MENU Screen

Now let's take a look at what happens when you first run Pine. When you first issue the pine command, the Main Menu appears. Here's what it looks like:

	PINE	MAIN MENU	Folder: INBOX	2 Messages
?	HELP	- Get help	using Pine	
C	COMPOSE MESSAG	E - Compose	and send/post a mo	essage
I	FOLDER INDEX	- View mes	sages in current :	folder
L	FOLDER LIST	- Select a	folder OR news gr	oup to view
A	ADDRESS BOOK	- U pdate a	ddress book	
S	SETUP	- Configur	e or update Pine	
Q	QUIT	- Exit the	Pine program	
	[Folder "	INBOX" opened	with 2 messages]	
Help		P Prev	(27.73.51)	
THER	CMDS L [List	Fldrs] N Next	Cmd KKBLock	

Figure 1. A Pine Main Menu Screen

As you can see, several selections are available. You can use the arrow keys to move your selection bar to the command you want to perform, or you can enter the letter of the command you want. Here is a brief explanation of the available commands.

Help (?). • Selecting this command will bring up an on-line help screen. Remember that in pine there's always on-line help whenever you need it. Just look at the bottom two lines of the screen to find which Key Command invokes help.

Compose Message (C). • This command will send you to the COMPOSE MESSAGE Screen, where you create your outgoing messages. See Section V - Creating Messages for more information.

Folder Index (I). • This command will allow you to browse through your messages. See Section III - Retrieving Your Messages for more information.

Folder List (F). • This will open the FOLDER LIST screen. You can then view messages that you have saved to various folders.

Address Book (A). • This opens your address book. See Section VII - Keeping an Address Book for more information.

Setup (S). • This allows you to set up various user-configurable options (e.g. Printer), obtain PC-Pine binaries from a mail server, and perform other miscellaneous commands.

Quit (**Q**). This will quit Pine.

Section III - Retrieving Your Messages

The FOLDER INDEX Screen

To retrieve messages, press I (for "Folder INDEX"). When you first start pine, the current folder will be your default mail folder (more commonly called your INBOX). Here's what the FOLDER INDEX screen looks like:

	PINE		FOLDER I	NDEX	Folder: INBOX	Message 3 of	3 NEW
D 1	X - 303773		Mu Li Christine	Smith	(486) (500)	Proposal NSF	
+ N 3	Jan	11	To: jhughe	s@art.somewl	here.ed (448)	Test	
? Help	ı		Main Menu	□ PrevMeα	- PrevPage	D Delete	RReply
OOTHE				N NextMsq	Spc NextPage		F Forward

FIGURE 2: The FOLDER INDEX Screen

You can use the arrow keys to move up and down the list, and then press Return to view the message. The FOLDER INDEX screen has a few more items than other screens, so we'll go over each in turn. You should already be familiar with the first line of the screen (the Title Line) and the last three lines of the screen (the Notification Line and the Keyboard Commands). The rest of the lines are devoted to showing pertinent information about each message. Each line of text is a one line summary of an actual message. From left to right, the layout of each message is as follows.

Personal Marker. The "+" sign in the first column indicates the message was directed specifically to you. In this case, the messages marked with a "+" were addressed directly to altitude@umich.edu. The other messages (the ones that do not have the "+" marker) might have been addressed to mailing lists or to address book groups of which this user is a member.

Message Number. This is just the number of the message. Although this can be configured, most people will have their messages numbered in the order in which they were received.

Message Status Flag. There are four message status flags. Each indicates the current status of a message.

N New Message. This flag indicates that you have not seen a message.

A Answered. This flag appears after you have used the R command to reply to a message. (See next Section on the Reply command.)

D Deleted Message. This flag appears when you have deleted a message either by explicitly deleting it, or by saving the message to another folder. (See next Section on Deleting and Saving messages.)

* Important. This flag means a message has been deemed important. It must be explicitly set by the user.

The first three flags will be automatically updated as you read and send your mail.

Date. When the message was sent

From. Who sent the message

Size. The number of characters (bytes) in the message

Subject. The subject of the message

There are many operations that you can perform on your messages. Here are a few.

View (V). You can view the message by either typing V or by pressing Return when you have selected the message you want to see. See the next section about using the MESSAGE TEXT Screen.

Delete (D). You can delete the current message with the D key command. This will mark the message to be deleted but will not actually remove it until you either expunge it with the X command or quit Pine. If you change your mind and don't want to delete the message, you can use the U key command to undelete it. Beware: If you do quit pine and/or expunge your messages, they are gone for good. You can't get them back.

Save (S). This will save a copy of the message into the folder of your choice. If you don't specify which folder, Pine will use saved-messages. The feature of specifying folders allows you to save messages employing any criteria you wish (from a certain user, about a certain subject, etc.). You will notice that the message gets marked for deletion. Don't worry; by that time a copy of your message has already been saved in the intended folder.

Reply (R). This command allows you to reply to the original author. It's useful when discussing topics via e-mail. Pine will ask if you want to include the original message in your reply. It is a often good idea to re-transmit relevant portions of the text, perhaps using the editor to intersperse your text in the original message. As general e-mail etiquette, delete any non-relevant portions of the text.

Forward (**F**). You can forward the message to another person or persons using the F command. Use this if you feel that the message should be looked at by someone else.

Export (E). This command is subtly different from the Save command. It allows copying the message into a directory other than your mail directory. Use this command if you want to use the message outside of pine, or if you want to reduce the number of mail headers that preface the message. An exported message is not marked for deletion.

Print (Y). The Print command will print your whole message to a printer.

Help (?). There are more commands that you can use. At the FOLDER INDEX Screen, press? to see the Help Screen.

NOTE: Pine will check to see if you have new mail every two and a half minutes. If you want to check for new mail right NOW, press ^L (Ctrl-L). This will refresh your screen as well.

Section IV - Reading Your Mail

I Want it ALL! -The MESSAGE TEXT Screen

The MESSAGE TEXT Screen is where you read your messages. When you view a message, it will look like this:

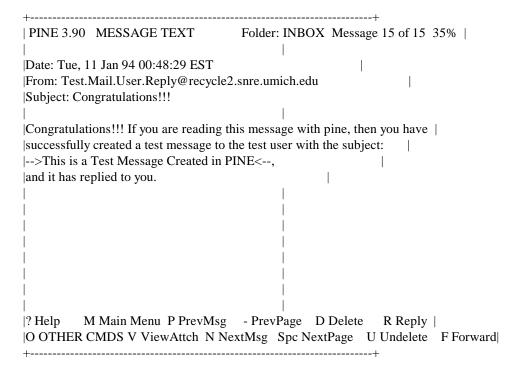


FIGURE 3: The MESSAGE TEXT Screen

There are many actions that you can perform on your messages. Most frequently you will use the following keys.

Space Bar. The space bar will scroll the text of the message one screen at a time.

Up and Down Arrow Keys. The arrow keys allow scrolling of the text one line at a time. Alternatives are available: Ctrl-P to move to the previous line and Ctrl-N to move to the next line.

The following key commands are the same as in the FOLDER INDEX Screen.

Space Bar and Minus Sign. If the text is more than one full screen, you can use the space bar to page down one whole screen and the minus sign (-) to page up correspondingly.

- **R.** Reply to the message. See Section V, Part 2 for more information about replying to a message.
- **F.** Forward the message.
- S. Save the message.
- Y. Print the message.

For more information on these commands, see Section III - Retrieving Your Messages.

Section V - Creating and Sending Messages (and Replies)

Sending a Message: The COMPOSE MESSAGE Screen

When you compose an outgoing message, you will see the following screen:

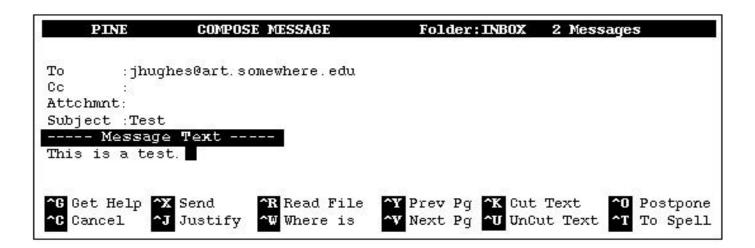


FIGURE 4: The COMPOSE MESSAGE Screen

The COMPOSE MESSAGE screen consists of the following fields:

To: Your cursor will appear at the first position of the To: field. Enter the address to which you want to send the mail. Here are a few conventions for specifying addresses:

If the person to whom you are sending the message has an account on Helix, you can just enter the recipient's login name. Pine will look through the system and try to add the person's real name.

If the person has been entered into your address book, you can just type in the appropriate nickname. See Section VII - Keeping an Address Book for more information.

If the recipient does not have a Helix account and is not in your address book, you will need to enter a full address, e.g. an Internet address of the form

name@host.some.domains

If you want to specify more than one recipient, separate the addresses with commas (i.e. To: andyb@umich.edu, altitude@umich.edu). If you have an address book, you can enter a person's nickname here too. See Section VII - Keeping an Address Book for more information.

Cc: The Cc: field is the "Carbon Copy" field. Enter addresses for any people you want to receive the message, who aren't direct recipients. (The most common usage is to Cc oneself.) For multiple recipients, use the same type of comma separated list as in the To: field.

Attchmnt: The Attachments field is where you would specify the names of files you want to include with your message. (You will have to place these files on Helix first.)

Subject: Enter a short, one line description of your message.

-- Message Text ---. Enter the text of your message below this line.

There are several commands with which you will want to become familiar in the MESSAGE TEXT screen:

Arrow Keys. You can use the arrow keys to navigate. Alternative keypresses are listed in Pine's on-line help.

Control-E (^E, in Pine notation). Moves your cursor to the end of the line.

Control-A (^A). Moves your cursor to the beginning of the line.

Control-K (^K). Kills (cuts) the line of text in which your cursor is situated. The text can be retrieved using ^U.

Control-^ (Control-Shift-6). Starts marking (selecting) text. You can then use the arrow keys to move elsewhere in the text, followed by ^K to kill the selected text. NOTE: Depending on how you are connected to Helix, doubling the Ctrl-^ keypress may be required. Helix dialin users, for instance, will need to double their Ctrl-^ keypresses.

Control-U (^U). Unkills (pastes) the most recently killed text (a killed line or a text region that you marked and then killed).

Control-X (^X). Sends the message you have composed.

Control-C (^C). Cancels the current message.

Control-O (**^O**). Postpones the message until a later time. The next time you compose a message, Pine will ask if you want to resume the postponed message. If you don't, fear not; you can keep writing other messages.

Control-G (^G). The "Get HELP" command. Pine will give you help on sending messages.

Replying to a Message: How Is That Different?

Many times you will want to respond to a piece of mail that someone has sent to you. Pine has a Reply command which allows you to reply to the author of the message (and anyone else too). You can invoke the Reply command from either the FOLDER INDEX screen or the MESSAGE TEXT screen. When you reply to a message, one or more questions will appear in the Information Line of your screen depending on the nature of the message. The first is

Include original message in Reply?

with a Key Menu of three responses:

^C Cancel Y Yes N [No]

Pine is asking if you want to include the original message in the reply. The letter n that appears inside the brackets "[n]" is the default command. If you just press the Return key, you will select what is inside the brackets. Often it's a good idea to include the text, to ensure a context for your reply.

Your COMPOSE MESSAGE REPLY Screen will have the original author's name on the To: line. If you chose to include the text the original text will have a ">" ahead of each line. This is to indicate that text is being quoted from another source. For example, consider the following:

FIGURE 5: The COMPOSE MESSAGE REPLY Screen

It is a good idea (as well as general Network Etiquette) only to include relevant portions of the original text. In the above example, you should remove the line "> John." because the person's name is irrelevant to the reply and the first three lines alone are sufficient to give John the context of your comments.

A second question will appear if the original message was sent to multiple recipients or a group:

Reply to all recipients?

Pine is asking if you want everyone who received the original message to receive your response as well. For example, if altitude@umich.edu sent a message to SNRE.Faculty@umich.edu, and you wanted to respond only to altitude, then you would not reply to all the recipients.

Another question will appear prior to the second if the original message contains a Reply-To: address that is different from the sender's own address.

Use "Reply to:" address instead of "From:" address?

This often occurs in the context of a mailing list, where the Reply-To: address may be the entire mailing list. Select whichever response to the question best suits your intent. If it appears you made the wrong choice, immediately press Ctrl-C (cancel) followed by R to start a new reply.

Section VI - Managing Your Mail (Folders)

Why Do I Need to Manage My Mail?

Managing your mail is important for several reasons. It is very easy to save mail to folders. (A folder is a container of messages, just like a physical folder is a container of papers.) This makes tracking a long message chain easier.

The second reason is that mail you receive will never go away unless you tell it to. So if you don't delete or save your messages, your mailbox will keep growing. This causes two problems. First, you may find that, after 100 or so messages, Pine gets slower. Second, unneeded messages in your mailbox can waste disk storage space.

How Do I Manage My Mail?

Pine allows you to manage your mail in two ways. First, you may save your mail into multiple folders. Folders allow you to separate your messages by subject, person, topic, or any other criterion. The management of folders is discussed below.

The second way to manage your mail is by removing old messages that are no longer needed. For the most part, such pruning requires individual initiative. In a few cases, however, Pine is able to assist by offering to delete an entire folder that it has reason to suspect is obsolete. For instance, it is possible (by means of Pine's default-fcc configuration setting) to have Pine accumulate in a folder copies

of every message you send. This folder tends to grow rapidly! Moreover, a month or more later the archived messages have probably served their purpose. Therefore, after the start of a new month, if you are using a default-fcc, Pine offers first to rename your folder by appending the past month and year to its name, and then to remove the renamed folder altogether. For example, if you archive your outgoing mail in a folder called sent-mail, then if you invoke Pine on May 1, 1994 you will be asked if you want to move your sent-mail folder to sent-mail-apr-1994; if so, you will then be asked if you want to delete sent-mail-apr-1994 and any "older brethren" such as sent-mail-mar-1994. This scheme can help manage the size of your archives of outgoing mail.

Pine will offer to prune your read-message-folder (another configuration option) in the same way.

How Do I Manage My Folders?

You can create, delete, move, view, and perform other actions on your folders. This discussion will only cover viewing, switching, creating and deleting folders.

When you are in the MAIN MENU or the FOLDER INDEX screen, you can press L to view a list of your folders. The following is a FOLDER LIST screen:

PINE	FOLDER LIST		Folder: INBOX	3 Me	ssages
Folder-colle	ection <mail []<="" th=""><th>> ** Default fo</th><th>r Saves **</th><th></th><th>(Local)</th></mail>	> ** Default fo	r Saves **		(Local)
INBOX	sent-mail	saved-messages	101c	Lass	
? Help O OTHER CMDS	M Main Menu V [ViewFldr]		58-855 P-555-69-756	D Delete A Add	R Rename

FIGURE 6: The FOLDER LIST Screen

As you can see, this screen lists all of the folders that you own. Here are a few functions that you can perform at this screen:

Add (A). This function allows you to add a new folder. You can create a folder from the FOLDER INDEX and VIEW MESSAGE screens as well. You do not need to explicitly create a folder in order to save to it: When you choose the Save option, and specify a folder name, Pine will check to see if the folder exists. If the folder does not exist, Pine will ask if you want to create a new folder with the name you gave.

Delete (**D**). This function deletes a folder and all of the messages in it. Be careful when using this function. Once you delete a folder, it is gone forever. Note: You cannot delete the special folder INBOX.

Rename (R). You can rename your folders. Note: You cannot rename the special folder INBOX.

View Folder (V). When you select a folder with a your selection bar, the View function will move you directly into the FOLDER INDEX Screen. Note: This is the default command, so you can also press the Return key to view a folder.

There is one special folder in the list: your INBOX. This is a special folder because it represents your new mail. You are not permitted to delete or rename your

Section VII - Keeping an Address Book

What Is an Address Book?

Sometimes it's very confusing to keep track of long Internet mail addresses. Pine has an address book, which is a list of people or groups and their associated e-mail addresses. The Pine address book is very similar to a real address book, with added functionality. It not only lets you reference people and their e-mail addresses, but allows you to enter a "nickname" on the To: or Cc: lines in the COMPOSE MESSAGE screen. When you enter a nickname, Pine will automatically look in your address book, replace the nickname by the full e-mail address, and add a real name. Here's what the Address Book Screen looks like:

PINE	ADDRESS BOOK	Folder:INBOX Message 3 of 3			
gomez	Gonzalez, George	qqonz@unixz.university.ca			
mu	Li, Mu	muli@university.edu			
chris rt	Smith, Christine K. Research Team	cksmith@art.somewhere.edu DISTRIBUTION LIST: gomez chris jhughes@art.somewhere.edu			
? Help O OTHER C	M Main Menu P PrevEntry	y PrevPage D Delete C Compo			

FIGURE 7: The ADDRESS BOOK Screen

Some of the Key Commands and their actions are explained below.

Add (A). This command adds a new person to your address book. Pine will ask you three questions about the new user:

- · The person's full name (Last, First).
- A "nickname" for this person. You can use anything that you like for this person. This is what you will type at the To: or Cc: lines henceforth when composing a message.
- The full electronic mail address of the person. After you enter it here, you don't have to remember it anymore. Henceforth, if you type what looks like a user name without a hostname, Pine will search through your address book and try to find the appropriate person. If it cannot find an entry, Pine will append "@helix.nih.gov" to the name.

Create List (S)

You can create personal lists of names so you don't have to type in a large number of e-mail addresses or nicknames. A list can be a group of people in the same project or just a group of friends. Note: These lists are private -the nicknames will only work for you. If you want to create a public mailing list, see your system administrator.

Delete (D)

You can delete the currently selected entry from your address book by pressing D.

Arrow Keys/Space Bar/Minus Sign

As always, you can use the arrow keys to move your selection bar to different locations on the screen. The space bar will scroll a full page, and the minus sign (-) will scroll back a page.

Section VIII - Personalization of Your Mail: The .signature file

What Is a .signature File, and Why Should I Use One?

In this day and age, electronic mail has invaded our lives almost as much as US Postal mail or the telephone. However, in contrast with the telephone, where moods can be projected by the tone of one's voice, and with US Postal mail, which can be written on letterhead, electronic mail can often seem impersonal and its origin vague. One automatic way to convey more information about you or your organization is to create a .signature file.

A .signature file appears at the end of your message. It is completely free form, so there isn't a set pattern or template that people use to create one. Often people include a full name, e-mail address, organization name, phone number, fax number, and sometimes a quote or disclaimer.

The only convention about .signature files is their length. It is considered general network etiquette to limit your signature files to four lines or less.

To create a signature file, use your favorite UNIX editor and create a file called .signature in your home directory. Remember to save the file in your home directory; if you save it somewhere else, it will not be attached to your messages.

Now, every time you create a message, the text from your .signature file will automatically appear in your message.

Here are some examples of .signature files:

Alex Tang --- ALTITUDE@UMICH.EDU...USERW00Y@UMICHUM.BITNET
-----+ UM-SNRE: Student, Computer Consultant III, & SysAdmin
PGP on request| ITD/CSS Consultant, Short Asian with long hair :)
or via finger | WWW -> http://www.snre.umich.edu/users/altitude/

Brian W. Spolarich "If life is a dream, then
UM ITD/US Consulting and Support Services we should be friends. After

briansp@umich.edu all, we are dreaming each

finger briansp@css.itd.umich.edu for PGP key. other."

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Section IX - Conclusions, a Test, and Legal Stuff

READY, SET, GO! Let's Try It Out!

OK, let's test all this stuff out. We'll run through a test message to see if we get the proper results.

- 1. If you are not already in pine, run it by typing pine at the command line prompt.
- 2. Enter the Compose message screen by typing C.
- 3. For the To: field, enter your login name. You will notice that pine recognizes you and includes your full name in the address. Pine performs this "expansion" on addresses of users on the local system and on your address book entries.
- 4. You can enter anything you would like in the Subject and Message Text fields.
- 5. When you are done, press ^X (Ctrl-X) to send the message.

There. You've just sent your first pine mail message. It should arrive shortly. (If you feel impatient, you can press ^L in the FOLDER INDEX screen to force Pine to check for your new mail right away.) You may read your message and dispose of it as you wish.

Well... That's about it for Pine. There are more features that haven't been discussed in this documentation. Use the on-line help to learn more, or ask one of your friendly neighborhood system administrators.

In Conclusion: Some General Notes and Comments

This document was originally created for the University of Michigan, School of Natural Resources and Environment to aid SNRE's

faculty, staff, and students in the transition from its mainframe based electronic mail system (MTS) to a UNIX Pine system.

It was envisioned as a short introduction to Pine and its most common uses. From speaking with SNRE faculty and staff, the original author found that people wanted documentation that would be clear enough for someone who has little or no experience with computers to follow, yet explain what was going on as well. It was first intended to be one sheet of paper, printed on both sides. As the original author quickly learned, Pine is a substantive program, with many more capabilities than had been documented. The once two page document quickly became 4 pages, then 6, then 9... Still, it is far from a comprehensive guide to all of Pine's features.

The document was subsequently modified for use on systems administered by the High Performance Scientific Computing Section, DCRT, National Institutes of Health. You are reading the NIH version.

Pine has many capabilities not mentioned here. It can also be customized in a number of ways. If you have any questions about how Pine works, or would like to see Pine do something that hasn't been mentioned in this document, please let your system administrator know. There probably is a way to do it.

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cc:Mail is copyright 1992 Lotus Corporation.

Microsoft Mail and Microsoft Word are copyright Microsoft Corporation.

WordPerfect is copyright WordPerfect Corporation.

SNRE Version: 11-Jul-94. Alex Tang <altitude@umich.edu> NIH Version: 26-Sep-94, Richard Troxel <rick@helix.nih.gov>